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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,885	03/31/2004	Jerome R. Lenhard	87741LMB	5763

7590 03/18/2008  
Paul A. Leipold  
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EXAMINER
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MARTINEZ, JOSEPH P

ART UNIT	PAPER NUMBER
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2873

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03/18/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/813,885	<b>Applicant(s)</b> LENHARD ET AL.	
	<b>Examiner</b> JOSEPH MARTINEZ	<b>Art Unit</b> 2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-137 is/are pending in the application.
- 4a) Of the above claim(s) 2-8, 11-36, 38-80 and 83-137 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 9, 10, 37, 81 and 82 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8-19-05, 3-31-04</u> .  | 6) <input type="checkbox"/> Other: _____                          |

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## **DETAILED ACTION**

### ***Election/Restrictions***

Claims 2-8, 11-36, 38-80 and 83-137 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 12-21-07.

### ***Examiner's Comment***

In regards to applicant's confusion of the inclusion of subspecies IHs-IHaa, the examiner apologizes for the typographical error. Subspecies His-IHaa, drawn to claims 28-36 and 100-108, were inadvertently grouped with Species IH. Claims 28-36 and 100-108 were indicated to be Species II and should have been further restricted into Subspecies IIa-III.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 9 and 10 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Scozzafava et al. (4514481).

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Re claim 1, Scozzafava et al. teaches for example in Compound 7 in col. 6, ln. 8-20, an electrochromic material comprising a substituted-1,1-dioxo-thiopyran of the claimed general structure I; wherein X is carbon (Compound 7 in col. 6, ln. 8-20), n is 2; R3 is independently an electron withdrawing (cyano group CN); R1 and R5 each independently represent an unsubstituted alkyl group (CH3); and R2 and R4 each independently represent hydrogen (Compound 7 in col. 6, ln. 8-20).

Re claim 9, Scozzafava et al. further teaches for example in Compound 7 in col. 6, ln. 8-20, X represents carbon and the value of n is 2.

Re claim 10, Scozzafava et al. further teaches for example in Compound 7 in col. 6, ln. 8-20, R3 is cyano.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 37, 81 and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scozzafava et al. (4514481) in view of Deb (4324622).

Re claim 37, Scozzafava et al. teaches for example in Compound 7 in col. 6, ln. 8-20, an electrochromic material comprising a substituted-1,1-dioxo-thiopyran of the claimed general structure I; wherein X is carbon (Compound 7 in col. 6, ln. 8-20), n is 2; R3 is independently an electron withdrawing (cyano group CN); R1 and R5 each independently represent an unsubstituted alkyl group (CH3); and R2 and R4 each independently represent hydrogen (Compound 7 in col. 6, ln. 8-20).

But, Scozzafava et al. fails to explicitly teach an electrochromic device comprising a substrate, at least two electrodes, an electrolyte positioned between said electrodes and an electron donor.

However, Scozzafava et al. explicitly teach the electrochromic material for use in a multilayer electrophotographic element (col. 6, ln. 22-24) Furthermore, within the same field of endeavor, Deb teaches for example in fig. 1 and 2, an electrochromic device comprising a substrate (10), at least two electrodes (11, 14), an electrolyte (col. 5, ln. 15 and col. 7, ln. 66-67 to col. 8, ln. 1; wherein the examiner interprets electrolytic coloration to teach the claimed limitation) positioned between said electrodes (wherein the examiner interprets the electrolyte for electrolytic coloration (col. 5, ln. 10-17) to be physically available to the electrochromic material in order to properly function and therefore interprets the electrolytic coloration material to be between the electrodes) and an electron donor (electrolyte for electrolytic coloration; col. 5, ln. 15 and col. 7, ln. 66-67 to col. 8, ln. 1).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Scozzafava et al. with Deb in order to provide an electrophotographic element with indefinite use, as taught by Scozzafava et al. (col. 2, ln. 16-19).

Re claim 81, Scozzafava et al. further teaches for example in Compound 7 in col. 6, ln. 8-20, X represents carbon and the value of n is 2.

Re claim 82, Scozzafava et al. further teaches for example in Compound 7 in col. 6, ln. 8-20, R3 is cyano.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph P. Martinez whose telephone number is 571-272-2335. The examiner can normally be reached on M-F 7:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Joseph Martinez/  
Patent Examiner, AU 2873  
3-11-08